

INTRODUCTION

The details in this section have been developed for internally insulated cavity wall constructions. The Introduction document 'Limiting Thermal Bridging and Air Infiltration Acceptable Construction Details' provides practical information with regards to implementation of these details onsite. This guide should be read in conjunction with these details. Details are given for the junctions with a range of roof, ground floor and internal floor types, as well as at external wall opes.

The details are indicative. They focus on the issues of thermal performance and air tightness. Other issues are not considered fully. Insulation thicknesses for the main building elements have not been provided, as these depend on the thermal properties of the materials chosen, as well as on the desired U-value.

Masonry materials shown on the drawings are blocks and bricks. Other masonry materials, including precast and insitu concrete, may be substituted without loss of thermal performance or increased technical risk. The use of thermally resistant materials, beyond that depicted, will naturally increase the thermal performance of the building fabric.

All materials and workmanship are to be installed to Technical Guidance Document D 'Materials and workmanship'.

Due to the practicalities of fixing insulated dry lining to blockwork, depending on insulation restraint, board thickness from 18 mm - 125 mm can be used.

All details are shown with a brick or block outer leaf for simplification. However, other types of masonry materials may be used as a substitution, such as blockwork with render, precast and insitu concrete, or tile hanging or weather boarding, without loss of thermal performance or increased technical risk. All external cladding systems should be proper materials as defined in Part D.

The suitability of full fill cavity construction depends on the site exposure and the nature of the outer leaf. Further information is given in in BR 262 "Thermal Insulation: Avoiding Risks" HomeBond Housebuilding Manual and relevant Irish Agreement Board certificates.

Cavity barriers are shown as continuous lines of dab (adhesive) on drawings. Other suitable cavity barriers may be used for different internal insulation fixing methods. For cavity barriers associated with cavity walls see Section 1 Walls – Insulation in cavity.

These diagrams illustrate good practice for design and construction of interfaces only in respect to ensuring thermal performance and air barrier continuity. The guidance must be implemented with due regard to all other requirements imposed by the Building Regulations.

Where cavity insulation is used with internal insulation the combination of both sets of details should be used which will provide the best limitation of thermal bridging and ensure air tightness.

ACCEPTABLE CONSTRUCTION DETAILS - SECTION (3)

- 3-0 I Ground Floor - Insulation above slab
- 3-02 Ground Floor - Insulation below slab
- 3-03 Timber Suspended Ground Floor
- 3-04 Concrete Intermediate Floor
- 3-05 Timber Intermediate Floor
- 3-06 Masonry Separating Wall - plan
- 3-07 Masonry Partition Wall - plan
- 3-08 Stud Partition Wall - plan
- 3-09 Eaves - Ventilated roof space
- 3-10 Eaves - Unventilated roof space
- 3-11 Eaves - Ventilated - Insulation between and under rafters - Dormer
- 3-12 Eaves - Unventilated - Insulation between and under rafters - Dormer
- 3-13 Eaves - Ventilated - Insulation between and under rafters - Pitched ceiling
- 3-14 Eaves - Unventilated - Insulation between and over rafters
- 3-15 Ventilated Roof - Attic Floor Level
- 3-16 Gable - Insulation between and under rafters - Ventilated Rafter Void
- 3-17 Gable - Insulation between and under rafters - Unventilated Rafter Void
- 3-18 Gable - Insulation between and over rafters - Unventilated Rafter Void
- 3-19 Flat Roof - Parapet
- 3-20 Flat Roof - Eaves
- 3-21 Ope - Steel lintel
- 3-22 Ope - Prestressed concrete lintels
- 3-23 Ope - Jamb with proprietary cavity closer
- 3-24 Ope - Concrete Forward Sill
- 3-25 Ope - Concrete Back Sill

The details in this section should also be read with Section G: General details

- G-0 I Masonry Separating Wall Head - Section
- G-02 Masonry Partition Head - Section
- G-03 Timber Stud Partition Head - Section
- G-04 Metal Stud Partition Head – Section

To limit the air permeability to a reasonable level as defined in Part L of the Building Regulations a high degree of attention to detail, good workmanship and appropriate site procedures are required. For further information see introductory document.

THERMAL PERFORMANCE

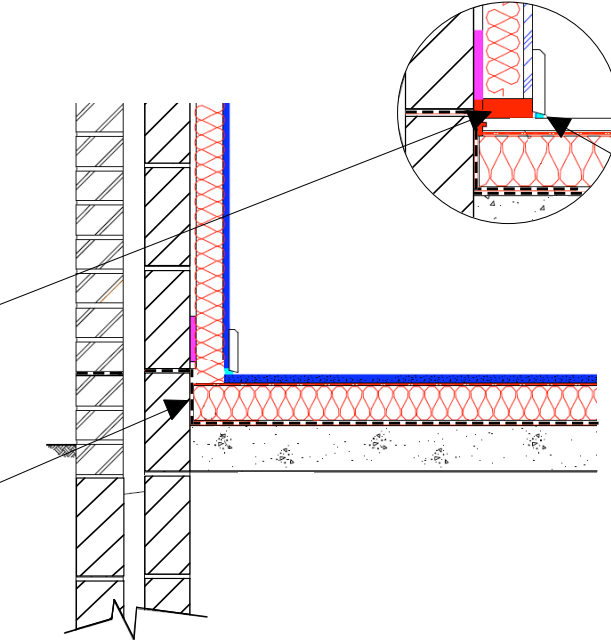
CHECKLIST (TICK ALL)

Inject an approved insulating expanding foam between the insulated dry-lining and the floor insulation

Floor insulation to tightly abut blockwork wall



Complying with checklist qualifies builder to claim ψ value in Table 3 of IP 1/06 and Table K1 of DEAP 2006



AIR BARRIER - CONTINUITY

CHECKLIST (TICK ALL)



Seal gap between skirting board and floor with a flexible sealant



Seal all penetrations through air barrier using a flexible sealant

Complying with checklist will help achieve design air permeability

GENERAL NOTES

Detail applicable:- Ground-bearing floor; raft foundation; in-situ suspended ground floor slab; pre-cast suspended ground floor. Insulation above slab, with timber floor finish

OPTION (TICK ONE)

AIR BARRIER - OPTIONS



Masonry inner leaf, with scratch coat applied to internal face of inner leaf, with insulated dry-lining on dabs or mechanically fixed pre-treated timber battens, or



Insulated dry-lining on dabs or battens, with continuous ribbon of adhesive tape around all openings, along top and bottom of wall, and at internal and external corners, or



Airtightness membrane and tapes

THERMAL PERFORMANCE

CHECKLIST
(TICK ALL)

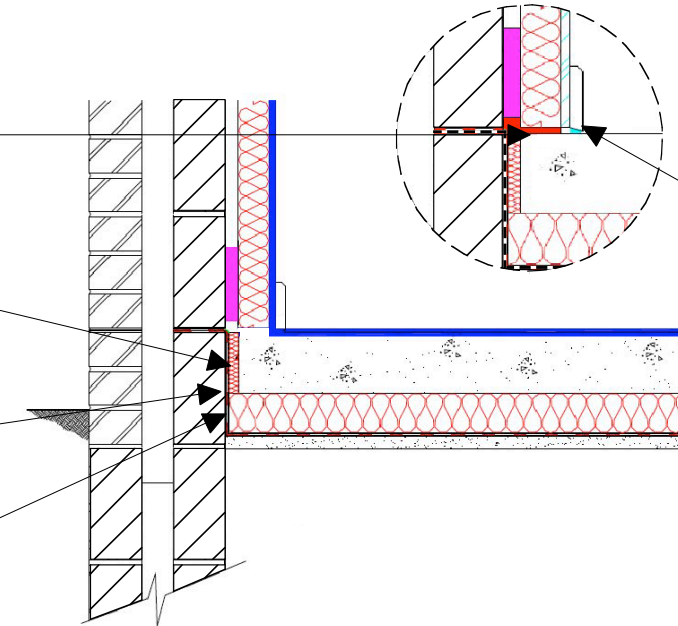
Inject insulating expanding foam between the insulated dry-lining and the floor insulation / timber floor finish

Install perimeter insulation with a min. R-value of 2.0 m² K/W

Ensure continuity between insulation below slab and insulation around perimeter

Floor insulation to tightly abut blockwork wall

Complying with checklist qualifies builder to claim ψ value in Table 3 of IP 1/06 and Table K1 of DEAP 2006



AIR BARRIER - CONTINUITY

CHECKLIST
(TICK ALL)

Seal gap between skirting board and floor with a flexible sealant

Seal all penetrations through air barrier using a flexible sealant

Complying with checklist will help achieve design air permeability

GENERAL NOTES

Detail applicable:- Ground-bearing floor; raft foundation; in-situ suspended ground floor slab; pre-cast suspended ground floor; concrete and screed. Insulation below slab

OPTION
(TICK ONE)

AIR BARRIER - OPTIONS

- Masonry inner leaf, with scratch coat applied to internal face of inner leaf, with insulated dry-lining on dabs or mechanically fixed pre-treated timber battens, or
- Insulated dry-lining on dabs or battens, with continuous ribbon of adhesive tape around all openings, along top and bottom of wall, and at internal and external corners, or
- Airtightness membrane and tapes

THERMAL PERFORMANCE

CHECKLIST (TICK ALL)

Inject insulating expanding foam between the insulated dry-lining and the timber floor deck

Ensure insulation is in contact with underside of timber flooring

Install insulation with a minimum R-value of 2.0 m² K/W between the wall and the joist, or held in place with battens between joists

Complying with checklist qualifies builder to claim ψ value in Table 3 of IP 1/06 and Table K1 of DEAP 2006

AIR BARRIER - CONTINUITY

CHECKLIST (TICK ALL)

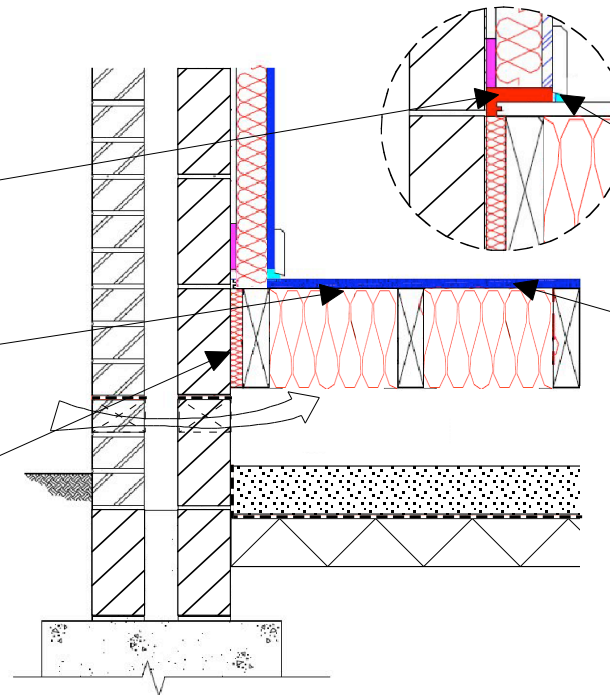
Seal gap between skirting board and floor with a flexible sealant

Seal joints in timber floor with suitable glue. Fully support and fix any square edge joints in the decking to the joists

Seal all penetrations through air barrier using a flexible sealant

Provide similar air seals at all internal partitions

Complying with checklist will help achieve design air permeability



GENERAL NOTES

If installing compressible insulation, ensure full insulation depth between joists

Fully ventilate sub floor

OPTION (TICK ONE)

AIR BARRIER - OPTIONS

Masonry inner leaf, with scratch coat applied to internal face of inner leaf, with insulated dry-lining on dabs or mechanically fixed pre-treated timber battens, or

Insulated dry-lining on dabs or battens, with continuous ribbon of adhesive tape around all openings, along top and bottom of wall, and at internal and external corners, or

Airtightness membrane and tapes

THERMAL PERFORMANCE

CHECKLIST (TICK ALL)

Inject insulating expanding foam between the insulated dry-lining and the concrete screed

Place insulation with a minimum R-value of 1.25 m² K/W in cavity, projecting minimum 100 mm above and below floor zone

Use insulating blockwork for entire inner leaf (Thermal conductivity equal to or less than 0.2 W/mK)

Ensure insulated dry-lining tightly abuts underside of floor slab

Complying with checklist qualifies builder to claim ψ value in Table 3 of IP 1/06 and Table K1 of DEAP 2006

AIR BARRIER - CONTINUITY

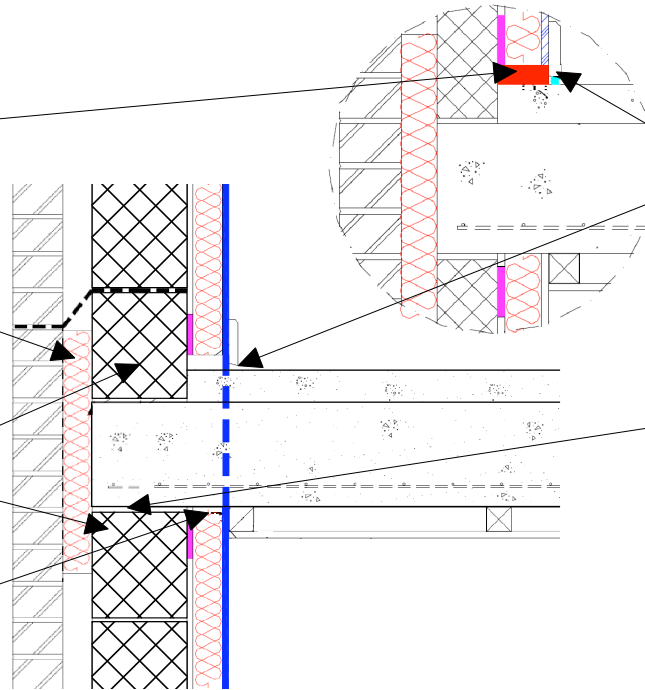
CHECKLIST (TICK ALL)

Seal gap between skirting board and floor, and between head of insulated dry-lining and underside of floor slab, with flexible sealant. (Dotted blue line is notional, to depict air barrier continuity through floor zone.)

Ensure continuous mortar bed between floor slab and top of blockwork wall

Seal all penetrations through air barrier using flexible sealant

Complying with checklist will help achieve design air permeability



GENERAL NOTES

Detail is diagrammatic only. Where floor is a separating floor, this would normally have an acoustic ceiling and further treatments would be provided. See TGD-E

OPTION (TICK ONE)

AIR BARRIER - OPTIONS

Masonry inner leaf, with scratch coat applied to internal face of inner leaf, with insulated dry-lining on dabs or mechanically fixed pre-treated timber battens, or

Insulated dry-lining on dabs or battens, with continuous ribbon of adhesive tape around all openings, along top and bottom of wall, and at internal and external corners, or

Airtightness membrane and tapes

THERMAL PERFORMANCE

CHECKLIST (TICK ALL)

Inject insulating expanding foam between the insulated dry-lining and the timber floor finish

Continue wall insulation across floor abutment zone. Place insulation with a minimum R-value of 2.0 m² K/W against wall, held in place by joist or battens

Ensure insulated dry-lining tightly abuts underside of ceiling

Complying with checklist qualifies builder to claim ψ value in Table 3 of IP 1/06 and Table K1 of DEAP 2006

AIR BARRIER - CONTINUITY

CHECKLIST (TICK ALL)

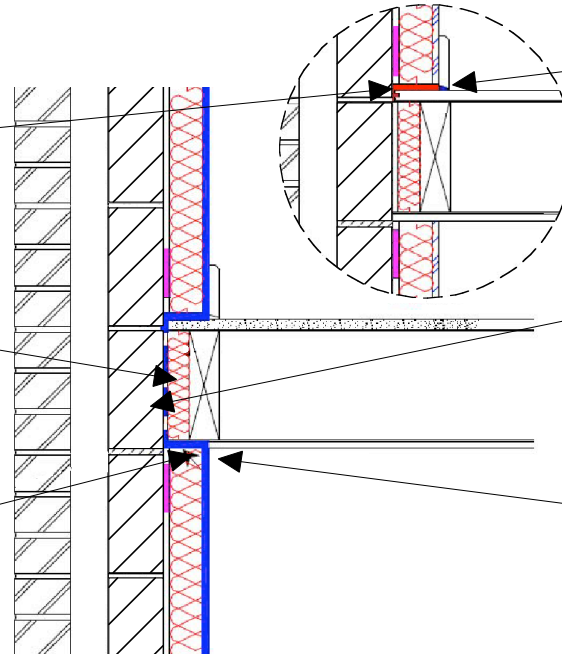
Seal gap between skirting board and floor using a flexible sealant

Mortar joints around built-in joists should be recessed or struck and carefully pointed with flexible sealant. Alternatively, joists may be fitted with proprietary shoes as they are installed. Seal shoe to blockwork face with a flexible sealant. (Dotted blue line is notional, to depict continuity of air barrier through floor zone)

Fix ceilings first, and seal all gaps between ceiling and masonry wall with flexible sealant.

Seal all penetrations through air barrier using a flexible sealant

Complying with checklist will help achieve design air permeability



GENERAL NOTES

Suspended timber floors may be laid in joist hangers rather than being built-in

For timber engineered joists, proprietary filler pieces must be fitted on both sides of web, between top and bottom flanges. Refer to manufacturers' details

OPTION (TICK ONE)

AIR BARRIER - OPTIONS

Masonry inner leaf, with scratch coat applied to internal face of inner leaf, with insulated dry-lining on dabs or mechanically fixed pre-treated timber battens, or

Insulated dry-lining on dabs or battens, with continuous ribbon of adhesive tape around all openings, along top and bottom of wall, and at internal and external corners, or

Airtightness membrane and tapes

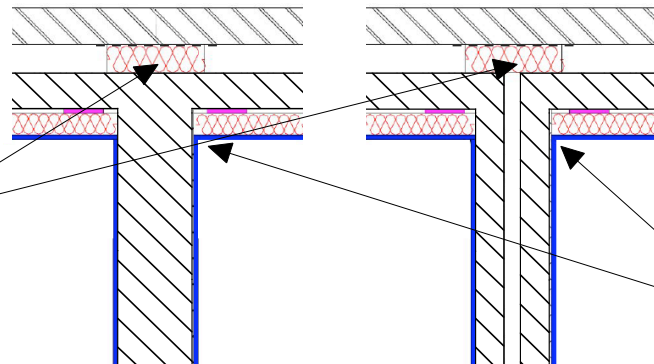
THERMAL PERFORMANCE

CHECKLIST
(TICK ALL)

Cavity insulation barrier to be minimum 260 mm wide or width of separating wall, whichever is the greater. (Use appropriate material where cavity barrier or full-fill insulation is employed)



Complying with checklist qualifies builder to claim ψ value in Table 3 of IP 1/06 and Table K1 of DEAP 2006



AIR BARRIER - CONTINUITY

CHECKLIST
(TICK ALL)



Seal all penetrations through air barrier using a flexible sealant



Fix insulated plasterboard to external wall first. Seal all gaps between board and separating wall with either adhesive or flexible sealant

Complying with checklist will help achieve design air permeability

GENERAL NOTES

See TGD-B for guidance on fire safety and TGD-E for guidance on sound insulation

Read this detail in conjunction with detail G-01, Masonry Separating Wall Head

OPTION
(TICK ONE)

AIR BARRIER - OPTIONS



Masonry inner leaf, with scratch coat applied to internal face of inner leaf, with insulated dry-lining on dabs or mechanically fixed pre-treated timber battens, or



Insulated dry-lining on dabs or battens, with continuous ribbon of adhesive tape around all openings, along top and bottom of wall, and at internal and external corners, or

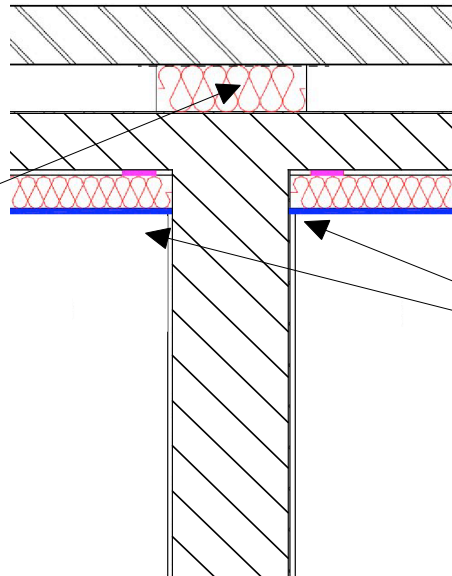


Airtightness membrane and tapes

THERMAL PERFORMANCE

CHECKLIST
(TICK ALL)

Insulation to be minimum 260 mm wide or width of partition wall, whichever is the greater. (Use appropriate material where cavity barrier or full-fill insulation is employed)



AIR BARRIER - CONTINUITY

CHECKLIST
(TICK ALL)



Seal all penetrations through air barrier using a flexible sealant



Fix insulated plasterboard to external wall first. Seal all gaps between board and masonry partition wall with either adhesive or flexible sealant. (Dotted blue line is notional, to depict air barrier continuity through partition, depending on whether partition is toothed into external wall or braced with ties)

Complying with checklist will help achieve design air permeability

GENERAL NOTES

Read this detail in conjunction with detail G-02, Masonry Partition Wall Head

OPTION
(TICK ONE)

AIR BARRIER - OPTIONS



Masonry inner leaf, with scratch coat applied to internal face of inner leaf, with insulated dry-lining on dabs or mechanically fixed pre-treated timber battens, or



Insulated dry-lining on dabs or battens, with continuous ribbon of adhesive tape around all openings, along top and bottom of wall, and at internal and external corners, or

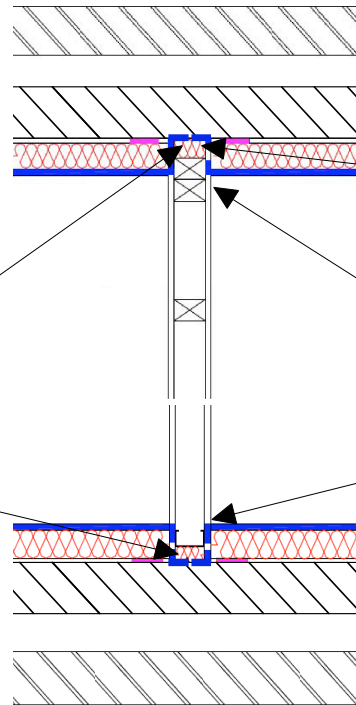


Airtightness membrane and tapes

THERMAL PERFORMANCE

CHECKLIST
(TICK ALL)

Install insulation with a minimum R-value of 2.0 m² K/W between wall and partition stud



Detail applicable to timber stud and metal stud partitions

AIR BARRIER - CONTINUITY

CHECKLIST
(TICK ALL)

- Fix partition lining first. Seal all gaps between lining and inner leaf of cavity with flexible sealant. (Dotted blue line is notional, to depict air barrier continuity through partition.)
- Seal between insulated dry-lining and partition linings
- Seal all penetrations through air barrier using a flexible sealant

Complying with checklist will help achieve design air permeability

GENERAL NOTES

Read this detail in conjunction with details G-03, Timber Stud Partition Head, or G-04, Metal Stud Partition Head as appropriate

OPTION
(TICK ONE)

AIR BARRIER - OPTIONS

- Masonry inner leaf, with scratch coat applied to internal face of inner leaf, with insulated dry-lining on dabs or mechanically fixed pre-treated timber battens, or
- Insulated dry-lining on dabs or battens, with continuous ribbon of adhesive tape around all openings, along top and bottom of wall, and at internal and external corners, or
- Airtightness membrane and tapes

THERMAL PERFORMANCE

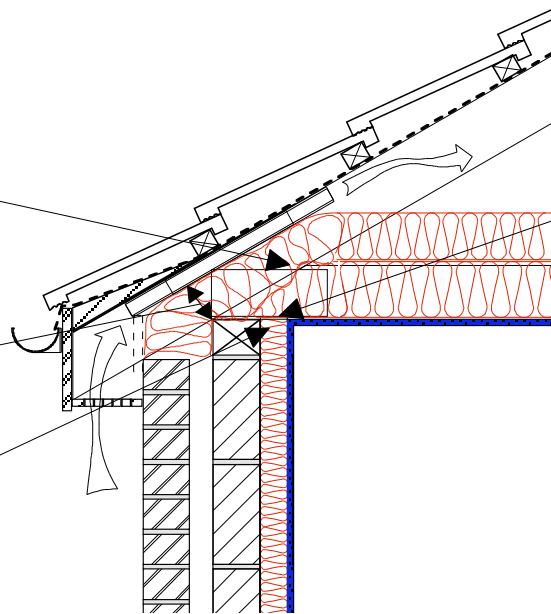
CHECKLIST (TICK ALL)

Ensure continuity of insulation throughout junction

Ensure full depth of insulation between and over joists abuts eaves insulation

Ensure gap between wall plate and proprietary eaves vent is completely filled with insulation having a min. R-value across the insulation thickness of 1.2 m² K/W

Ensure insulated dry-lining tightly abuts underside of ceiling



Complying with checklist qualifies builder to claim ψ value in Table 3 of IP 1/06 and Table K1 of DEAP 2006

AIR BARRIER - CONTINUITY

CHECKLIST (TICK ALL)

Fix ceiling first, and seal all gaps between ceiling and masonry wall with either adhesive or flexible sealant

Bed wall plate on continuous mortar bed

Seal all penetrations through air barrier using a flexible sealant

Complying with checklist will help achieve design air permeability

GENERAL NOTES

Thermal performance of junction can be improved by incorporating an eaves wind barrier (plywood, OSB, softboard or other suitable material) around insulation to be sealed to connect with the ventilator strip thereby mitigating wind chill from the vent inlet in the eaves.

Use of over joist insulation is considered best practice, as it eliminates the cold bridge caused by the joist

Use a proprietary eaves ventilator to ensure ventilation in accordance with BS5250. Installation of the eaves ventilator must not prevent free water drainage below the tiling battens

Read this detail in conjunction with detail 3-15, Gable - Attic Floor Level

OPTION (TICK ONE)

AIR BARRIER - OPTIONS

Masonry inner leaf, with scratch coat applied to internal face of inner leaf, with insulated dry-lining on dabs or mechanically fixed pre-treated timber battens, or

Insulated dry-lining on dabs or battens, with continuous ribbon of adhesive tape around all openings, along top and bottom of wall, and at internal and external corners, or

Airtightness membrane and tapes

THERMAL PERFORMANCE

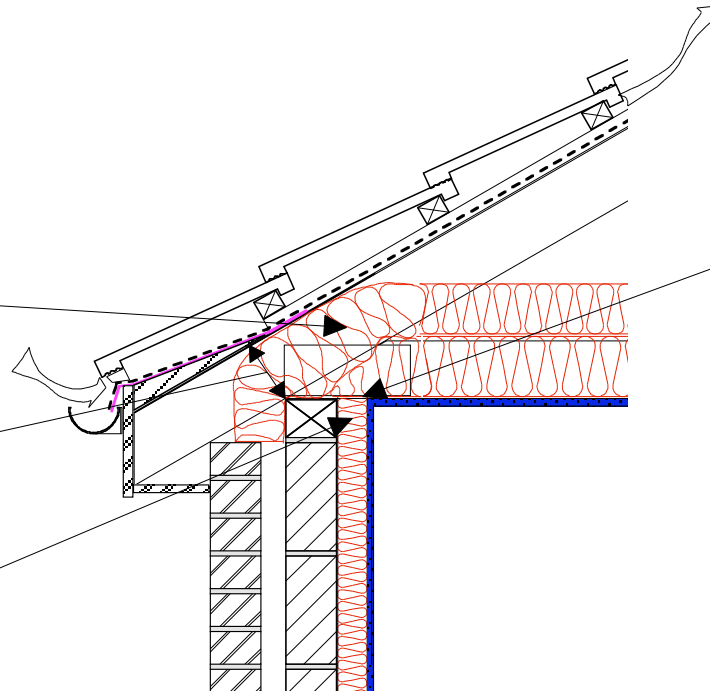
CHECKLIST (TICK ALL)

Ensure continuity of insulation throughout junction

Ensure full depth of insulation between and over joists abuts eaves insulation

Ensure gap between wall plate and proprietary eaves vent is completely filled with insulation having a min. R-value across the insulation thickness of 1.2 m² K/W

Ensure insulated dry-lining tightly abuts underside of ceiling



Complying with checklist qualifies builder to claim ψ value in Table 3 of IP 1/06 and Table K1 of DEAP 2006

AIR BARRIER - CONTINUITY

CHECKLIST (TICK ALL)

Fix ceiling first, and seal all gaps between ceiling and masonry wall with either adhesive or flexible sealant

Bed wall plate on continuous mortar bed

Seal all penetrations through air barrier using a flexible sealant

Complying with checklist will help achieve design air permeability

GENERAL NOTES

- Use of over joist insulation is considered best practice, as it eliminates the cold bridge caused by the joist
- Use proprietary eaves ventilator to ensure ventilation in accordance with BS5250
- Use vapour permeable roof underlay in strict accordance with third party certification
- Eaves insulation must not hinder free water drainage below the tiling battens
- Read this detail in conjunction with detail 3-15, Gable - Attic Floor Level

OPTION (TICK ONE)

AIR BARRIER - OPTIONS

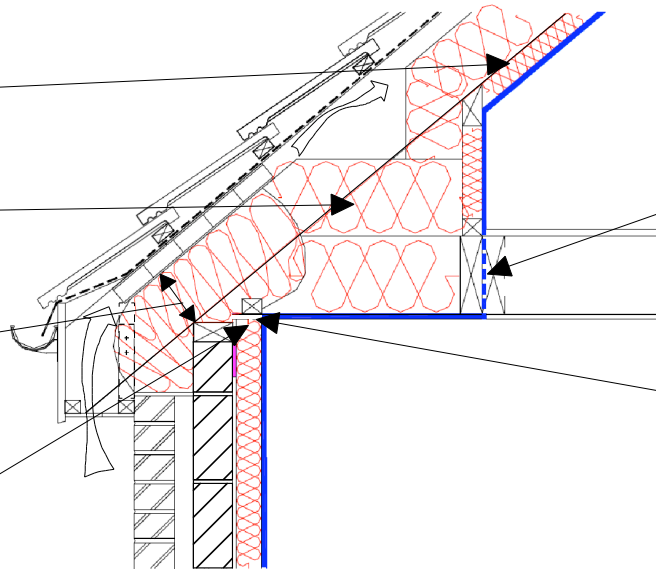
- Masonry inner leaf, with scratch coat applied to internal face of inner leaf, with insulated dry-lining on dabs or mechanically fixed pre-treated timber battens, or
- Insulated dry-lining on dabs or battens, with continuous ribbon of adhesive tape around all openings, along top and bottom of wall, and at internal and external corners, or
- Airtightness membrane and tapes

THERMAL PERFORMANCE

CHECKLIST (TICK ALL)

- Ensure continuity of insulation throughout junction
- Ensure insulation is installed tightly between rafters and is in contact with under-rafter insulation
- Ensure full depth of insulation between and over joists abuts eaves insulation
- Ensure gap between wall plate and proprietary eaves vent is completely filled with insulation having a min. R-value across the insulation thickness of 1.2 m² K/W
- Ensure insulated dry-lining tightly abuts underside of ceiling

Complying with checklist qualifies builder to claim ψ value in Table 3 of IP 1/06 and Table K1 of DEAP 2006



AIR BARRIER - CONTINUITY

CHECKLIST (TICK ALL)

- Bed wall plate on continuous mortar bed
- Install double, full depth timber nogging between floor joists, and seal between nogging, ceiling and upper stud wall with a flexible sealant. (Dotted blue line is notional, to depict air barrier continuity through noggings.)
- Fix ceiling first, and seal all gaps between ceiling and masonry wall with either adhesive or flexible sealant
- Seal all penetrations through air barrier using a flexible sealant

Complying with checklist will help achieve design air permeability

GENERAL NOTES

Thermal performance of junction can be improved by incorporating an eaves wind barrier (plywood, OSB, softboard or other suitable material) around insulation to be sealed to connect with the ventilator strip thereby mitigating wind chill from the vent inlet in the eaves.

Use a proprietary eaves ventilator to ensure ventilation in accordance with BS5250. Installation of the eaves ventilator must not prevent free water drainage below the tiling battens

If required by BS5250, use vapour control plasterboard or separate vapour control layer behind plasterboard.

Use of over joist and under rafter insulation is considered best practice, as it eliminates the cold bridge caused by the joist/rafter

Read this detail in conjunction with detail 3-16, Gable - Insulation between and under rafters - Ventilated Rafter Void

OPTION (TICK ONE)

AIR BARRIER - OPTIONS

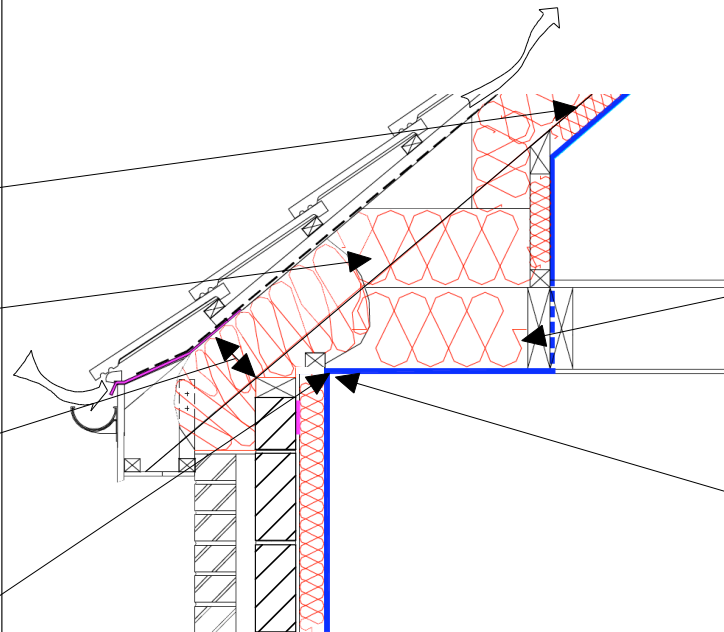
- Masonry inner leaf, with scratch coat applied to internal face of inner leaf, with insulated dry-lining on dabs or mechanically fixed pre-treated timber battens, or
- Insulated dry-lining on dabs or battens, with continuous ribbon of adhesive tape around all openings, along top and bottom of wall, and at internal and external corners, or
- Airtightness membrane and tapes

THERMAL PERFORMANCE

CHECKLIST (TICK ALL)

- Ensure continuity of insulation throughout junction
- Ensure insulation is installed tightly between rafters and is in contact with under-rafter insulation
- Ensure full depth of insulation between and over joists abuts eaves insulation
- Ensure gap between wall plate and proprietary eaves guard is completely filled with insulation having a min. R-value across the insulation thickness of 1.2 m² K/W
- Ensure insulated dry-lining tightly abuts underside of ceiling

Complying with checklist qualifies builder to claim ψ value in Table 3 of IP 1/06 and Table K1 of DEAP 2006



AIR BARRIER - CONTINUITY

CHECKLIST (TICK ALL)

- Bed wall plate on continuous mortar bed
- Install double, full depth timber nogging between floor joists, and seal between nogging, ceiling and upper stud wall with a flexible sealant. (Dotted blue line is notional, to depict air barrier continuity through noggings.)
- Fix ceiling first, and seal all gaps between ceiling and masonry wall with either adhesive or flexible sealant
- Seal all penetrations through air barrier using a flexible sealant

Complying with checklist will help achieve design air permeability

GENERAL NOTES

If required by BS5250, use vapour control plasterboard or separate vapour control layer behind plasterboard.
 Vapour permeable roof underlay to be used in strict accordance with approved third party certification
 Use of over joist and under rafter insulation is considered best practice, as it eliminates the cold bridge caused by the joist/rafter
 Eaves insulation must not hinder free water drainage below the tiling battens
 Read this detail in conjunction with detail 3-17, Gable - Insulation between and under rafters - Unventilated Rafter Void

OPTION (TICK ONE)

AIR BARRIER - OPTIONS

- Masonry inner leaf, with scratch coat applied to internal face of inner leaf, with insulated dry-lining on dabs or mechanically fixed pre-treated timber battens, or
- Insulated dry-lining on dabs or battens, with continuous ribbon of adhesive tape around all openings, along top and bottom of wall, and at internal and external corners, or
- Airtightness membrane and tapes

THERMAL PERFORMANCE

CHECKLIST
(TICK ALL)

Ensure continuity of insulation throughout junction

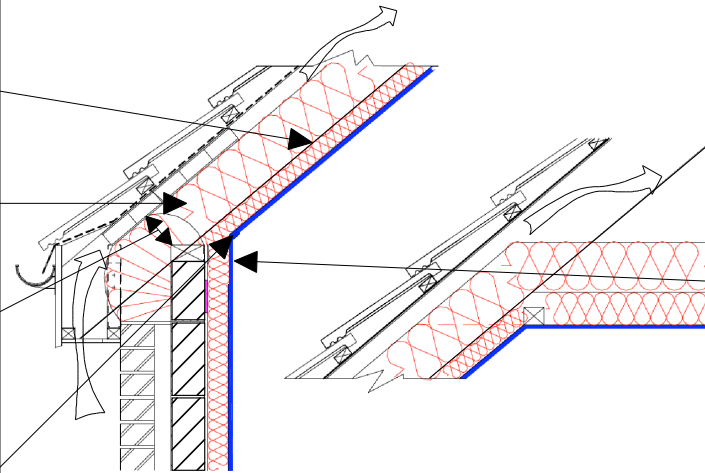
Ensure insulation is installed tightly between rafters and is in contact with under-rafter insulation

Ensure full depth of insulation between and under rafters abuts eaves insulation

Ensure gap between wall plate and proprietary eaves vent is completely filled with insulation having a min. R-value across the insulation thickness of 1.2 m² K/W

Ensure insulated dry-lining tightly abuts underside of ceiling

Complying with checklist qualifies builder to claim ψ value in Table 3 of IP 1/06 and Table K1 of DEAP 2006



AIR BARRIER - CONTINUITY

CHECKLIST
(TICK ALL)

Bed wall plate on continuous mortar bed

Fix ceiling first, and seal all gaps between ceiling and masonry wall with either adhesive or flexible sealant

Seal all penetrations through air barrier using a flexible sealant

Complying with checklist will help achieve design air permeability

GENERAL NOTES

Thermal performance of junction can be improved by incorporating an eaves wind barrier (plywood, OSB, softboard or other suitable material) around insulation to be sealed to connect with the ventilator strip thereby mitigating wind chill from the vent inlet in the eaves.

Use a proprietary eaves ventilator to ensure ventilation in accordance with BS5250. Installation of the eaves ventilator must not prevent free water drainage below the tiling battens

If required by BS5250, use vapour control plasterboard or separate vapour control layer behind plasterboard.

Use of over joist and under rafter insulation is considered best practice, as it eliminates the cold bridge caused by the joist/rafter

Read this detail in conjunction with detail 3-16, Gable - Ventilated Rafter Void

OPTION
(TICK ONE)

AIR BARRIER - OPTIONS

Masonry inner leaf, with scratch coat applied to internal face of inner leaf, with insulated dry-lining on dabs or mechanically fixed pre-treated timber battens, or

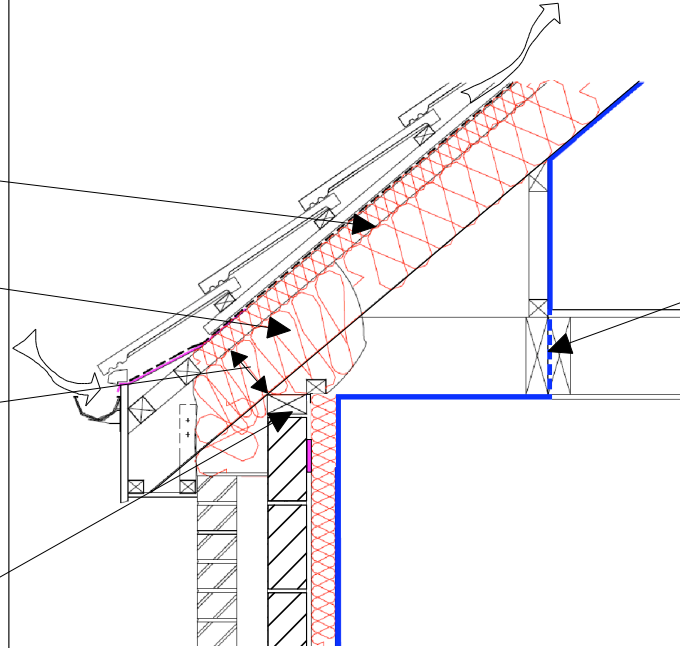
Insulated dry-lining on dabs or battens, with continuous ribbon of adhesive tape around all openings, along top and bottom of wall, and at internal and external corners, or

Airtightness membrane and tapes

THERMAL PERFORMANCE

CHECKLIST
(TICK ALL)

- Ensure continuity of insulation throughout junction
- Ensure insulation is installed tightly between rafters and is in contact with over-rafter insulation
- Ensure full depth of insulation between and over rafters abuts eaves insulation
- Ensure gap between wall plate and over rafter insulation is completely filled with insulation having a min. R-value across the insulation thickness of 1.2 m² K/W
- Ensure insulated dry-lining tightly abuts underside of ceiling



Complying with checklist qualifies builder to claim ψ value in Table 3 of IP 1/06 and Table K1 of DEAP 2006

AIR BARRIER - CONTINUITY

CHECKLIST
(TICK ALL)

- Bed wall plate on continuous mortar bed
- Install double, full depth timber nogging between floor joists, and seal between nogging, ceiling and upper stud wall with a flexible sealant. (Dotted blue line is notional, to depict air barrier continuity through noggings.)
- Fix ceiling first, and seal all gaps between ceiling and masonry wall with either adhesive or flexible sealant
- Seal all penetrations through air barrier using a flexible sealant

Complying with checklist will help achieve design air permeability

GENERAL NOTES

- Vapour permeable roof underlay to be used in strict accordance with approved third party certification
- If required by BS5250, use vapour control plasterboard or separate vapour control layer behind plasterboard.
- Use of over rafter insulation is considered best practice, as it eliminates the cold bridge caused by the joist/rafter
- Read this detail in conjunction with detail 3-18, Gable - Insulation between and over rafters

OPTION
(TICK ONE)

AIR BARRIER - OPTIONS

- Masonry inner leaf, with scratch coat applied to internal face of inner leaf, with insulated dry-lining on dabs or mechanically fixed pre-treated timber battens, or
- Insulated dry-lining on dabs or battens, with continuous ribbon of adhesive tape around all openings, along top and bottom of wall, and at internal and external corners, or
- Airtightness membrane and tapes

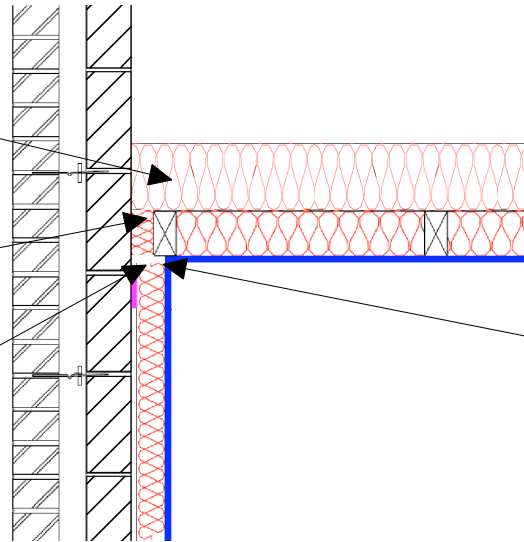
THERMAL PERFORMANCE

CHECKLIST
(TICK ALL)

Ensure full depth of insulation between and over joists extends to inner edge of wall

Pack compressible insulation between last truss or joist, and gable wall

Ensure insulated dry-lining tightly abuts underside of ceiling



Complying with checklist qualifies builder to claim ψ value in Table 3 of IP 1/06 and Table K1 of DEAP 2006

AIR BARRIER - CONTINUITY

CHECKLIST
(TICK ALL)

Seal all penetrations through air barrier using a flexible sealant

Fix ceiling first, and seal all gaps between ceiling and masonry wall with either adhesive or flexible sealant

Complying with checklist will help achieve design air permeability

GENERAL NOTES

Thermal performance of junction can be improved significantly by using blockwork with a thermal conductivity of ≤ 0.20 W/mK in direction of heat flow in external wall at attic floor level or alternatively by running insulation of R-value $1.5 \text{ m}^2\text{K/W}$ vertically up internal face of gable wall to a height of 450 mm above ceiling level

Use of over joist insulation is considered best practice, as it eliminates the cold bridge caused by the joist

Read this detail in conjunction with details 3-09, Eaves - Ventilated Attic, or 3-10, Eaves - Unventilated Attic, as appropriate

Where different block materials are being used consideration should be given to avoid cracking in plaster at the junction between the block materials

OPTION
(TICK ONE)

AIR BARRIER - OPTIONS

Masonry inner leaf, with scratch coat applied to internal face of inner leaf, with insulated dry-lining on dabs or mechanically fixed pre-treated timber battens, or

Insulated dry-lining on dabs or battens, with continuous ribbon of adhesive tape around all openings, along top and bottom of wall, and at internal and external corners, or

Airtightness membrane and tapes

THERMAL PERFORMANCE

**CHECKLIST
(TICK ALL)**

Fit insulation over top of wall within gable ladder. Fully fill void unless underlay requires to be draped, when 25 mm void must be maintained

Ensure top of wall is leveled with mortar to correct pitch

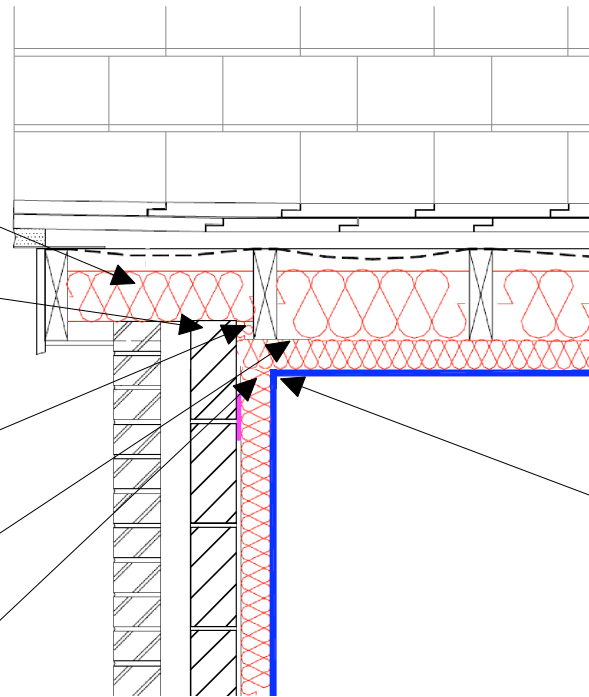
Ensure insulation continuity throughout junction

Ensure full depth of insulation between and under rafters extends to wall. Pack gap between rafter and wall with compressible insulation

Ensure insulation is installed tightly between rafters and is in contact with under-rafter insulation

Ensure insulated dry-lining tightly abuts underside of ceiling

Complying with checklist qualifies builder to claim ψ value in Table 3 of IP 1/06 and Table K1 of DEAP 2006



AIR BARRIER - CONTINUITY

**CHECKLIST
(TICK ALL)**

Seal all penetrations through air barrier using a flexible sealant

Fix ceiling first, and seal all gaps between ceiling and masonry wall with either adhesive or flexible sealant

Complying with checklist will help achieve design air permeability

GENERAL NOTES

Ensure ventilation to roof build-up in accordance with BS5250

If required by BS5250, use vapour control plasterboard or separate vapour control layer behind plasterboard.

Use of under rafter insulation is considered best practice, as it eliminates the cold bridge caused by the rafter

Read this detail in conjunction with detail 3-11: Eaves - Insulation between and under rafters - Ventilated Rafter Void

Ensure cavity is closed with insulant or proprietary cavity closer barrier

**OPTION
(TICK ONE)**

AIR BARRIER - OPTIONS

Masonry inner leaf, with scratch coat applied to internal face of inner leaf, with insulated dry-lining on dabs or mechanically fixed pre-treated timber battens, or

Insulated dry-lining on dabs or battens, with continuous ribbon of adhesive tape around all openings, along top and bottom of wall, and at internal and external corners, or

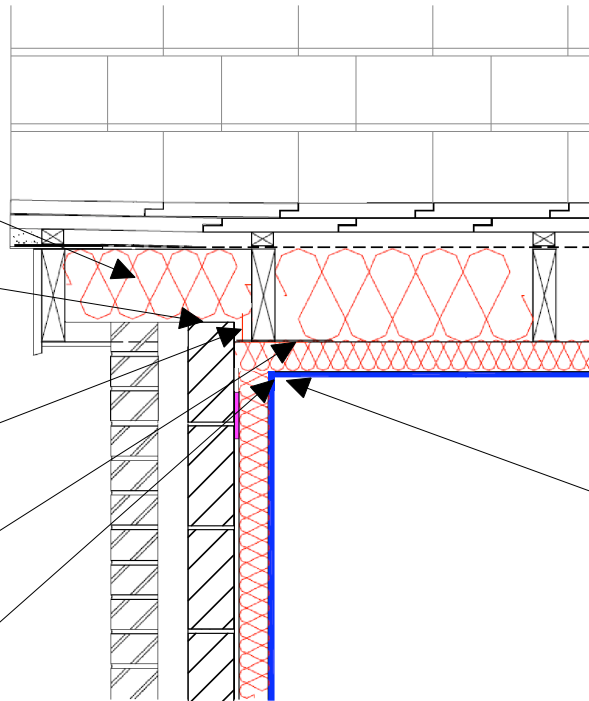
Airtightness membrane and tapes

THERMAL PERFORMANCE

**CHECKLIST
(TICK ALL)**

- Fit insulation over top of wall within gable ladder. Fully fill void unless underlay requires to be draped, when 25 mm void must be maintained
- Ensure top of wall is leveled with mortar to correct pitch
- Ensure insulation continuity throughout junction
- Ensure full depth of insulation between and under rafters extends to wall. Pack gap between rafter and wall with compressible insulation
- Ensure insulation is installed tightly between rafters and is in contact with under-rafter insulation
- Ensure insulated dry-lining tightly abuts underside of ceiling

Complying with checklist qualifies builder to claim ψ value in Table 3 of IP 1/06 and Table K1 of DEAP 2006



AIR BARRIER - CONTINUITY

**CHECKLIST
(TICK ALL)**

- Seal all penetrations through air barrier using a flexible sealant
- Fix ceiling first, and seal all gaps between ceiling and masonry wall with either adhesive or flexible sealant

Complying with checklist will help achieve design air permeability

GENERAL NOTES

- Vapour permeable roof underlay to be used in strict accordance with approved third party certification
- If required by BS5250, use vapour control plasterboard or separate vapour control layer behind plasterboard.
- Use of under-rafter insulation is considered best practice, as it eliminates the cold bridge caused by the rafter
- Read this detail in conjunction with detail 3-12, Eaves - Insulation between and under rafters - Unventilated Rafter Void
- Ensure cavity is closed with insulant or proprietary cavity closer barrier

**OPTION
(TICK ONE)**

AIR BARRIER - OPTIONS

- Masonry inner leaf, with scratch coat applied to internal face of inner leaf, with insulated dry-lining on dabs or mechanically fixed pre-treated timber battens, or
- Insulated dry-lining on dabs or battens, with continuous ribbon of adhesive tape around all openings, along top and bottom of wall, and at internal and external corners, or
- Airtightness membrane and tapes

THERMAL PERFORMANCE

CHECKLIST
(TICK ALL)

Fit insulation over top of wall within gable ladder. Fully fill void between wall head and over-rafter insulation

Ensure top of wall is leveled with mortar to correct pitch

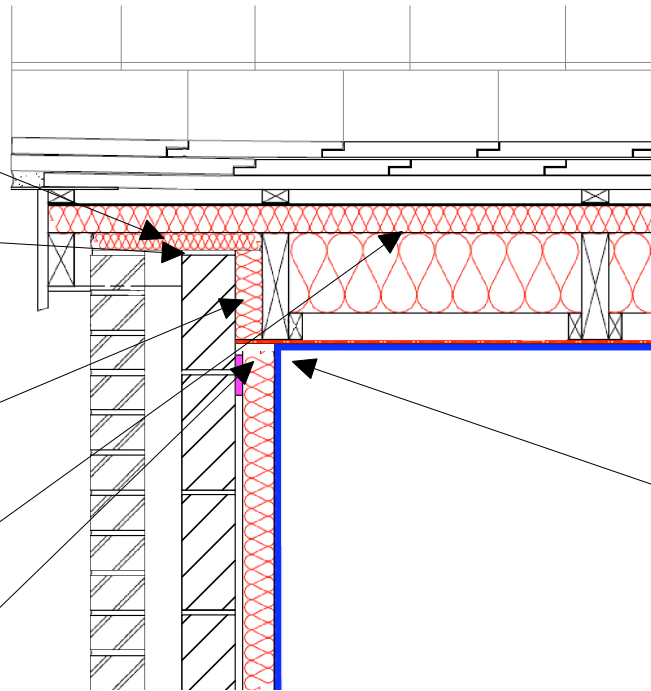
Ensure insulation continuity throughout junction

Ensure full depth of insulation between and under rafters extends to wall. Pack gap between rafter and wall with compressible insulation

Ensure insulation is installed tightly between rafters and is in contact with over-rafter insulation

Ensure insulated dry-lining tightly abuts underside of ceiling

Complying with checklist qualifies builder to claim ψ value in Table 3 of IP 1/06 and Table K1 of DEAP 2006



AIR BARRIER - CONTINUITY

CHECKLIST
(TICK ALL)

Seal all penetrations through air barrier using a flexible sealant

Fix ceiling first, and seal all gaps between ceiling and masonry wall with either plaster, adhesive or flexible sealant

Complying with checklist will help achieve design air permeability

GENERAL NOTES

Vapour permeable roof underlay to be used in strict accordance with approved third party certification

If required by BS5250, use vapour control plasterboard or separate vapour control layer behind plasterboard.

Use of over-rafter insulation is considered best practice, as it eliminates the cold bridge caused by the rafter

Ensure bottom of attic ladder is at least 25 mm above bottom of last joist

Read this detail in conjunction with detail 3-14, Eaves - Insulation between and over rafters

Ensure cavity is closed with insulant or proprietary cavity closer barrier

OPTION
(TICK ONE)

AIR BARRIER - OPTIONS

Masonry inner leaf, with scratch coat applied to internal face of inner leaf, with insulated dry-lining on dabs or mechanically fixed pre-treated timber battens, or

Insulated dry-lining on dabs or battens, with continuous ribbon of adhesive tape around all openings, along top and bottom of wall, and at internal and external corners, or

Airtightness membrane and tapes

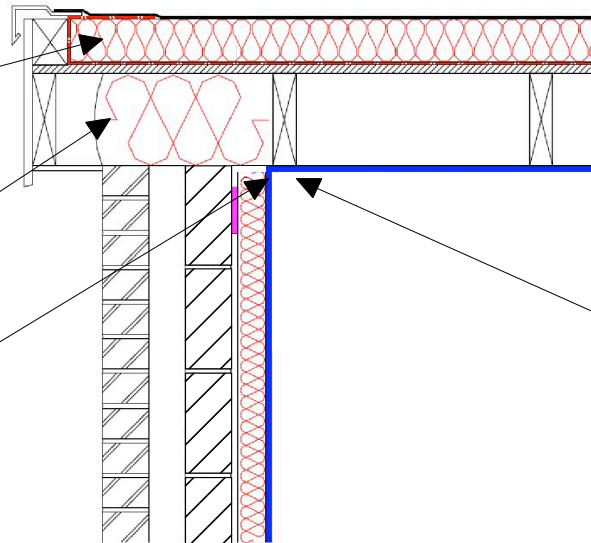
THERMAL PERFORMANCE

CHECKLIST
(TICK ALL)

Ensure full depth of over deck insulation extends to roof edge

Tightly pack compressible insulation into void between top of wall and underside of roof deck

Ensure insulated dry-lining tightly abuts underside of ceiling



Complying with checklist qualifies builder to claim ψ value in Table 3 of IP 1/06 and Table K1 of DEAP 2006

AIR BARRIER - CONTINUITY

CHECKLIST
(TICK ALL)

Seal all penetrations through air barrier using a flexible sealant

Fix ceiling first, and seal all gaps between ceiling and masonry wall with either plaster, adhesive or flexible sealant

Complying with checklist will help achieve design air permeability

GENERAL NOTES

BS5250 requires vapour control layer to be installed between deck and insulation

Turn up vapour control layer at edge of roof insulation, lap with roof waterproofing layer, and seal

Use compatible materials during construction

OPTION
(TICK ONE)

AIR BARRIER - OPTIONS

Masonry inner leaf, with scratch coat applied to internal face of inner leaf, with insulated dry-lining on dabs or mechanically fixed pre-treated timber battens, or

Insulated dry-lining on dabs or battens, with continuous ribbon of adhesive tape around all openings, along top and bottom of wall, and at internal and external corners, or

Airtightness membrane and tapes

THERMAL PERFORMANCE

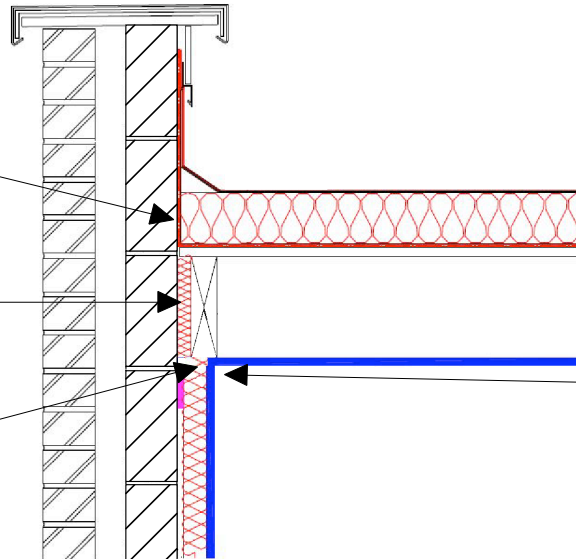
CHECKLIST
(TICK ALL)

Ensure roof insulation tightly abuts inner face of parapet wall

Insulation with a minimum R-value of 2.0 m²K/W (in heat flow direction perpendicular to wall surface)

Ensure insulated dry-lining tightly abuts underside of ceiling

Complying with checklist qualifies builder to claim ψ value in Table 3 of IP 1/06 and Table K1 of DEAP 2006



AIR BARRIER - CONTINUITY

CHECKLIST
(TICK ALL)

Seal all penetrations through air barrier using a flexible sealant

Fix ceiling first, and seal all gaps between ceiling and masonry wall with either plaster, adhesive or flexible sealant

Complying with checklist will help achieve design air permeability

GENERAL NOTES

BS5250 requires vapour control layer to be installed between deck and insulation

Turn up vapour control layer at edge of roof insulation, lap with roof waterproofing layer, and seal

OPTION
(TICK ONE)

AIR BARRIER - OPTIONS

Masonry inner leaf, with scratch coat applied to internal face of inner leaf, with insulated dry-lining on dabs or mechanically fixed pre-treated timber battens, or

Insulated dry-lining on dabs or battens, with continuous ribbon of adhesive tape around all openings, along top and bottom of wall, and at internal and external corners, or

Airtightness membrane and tapes

THERMAL PERFORMANCE

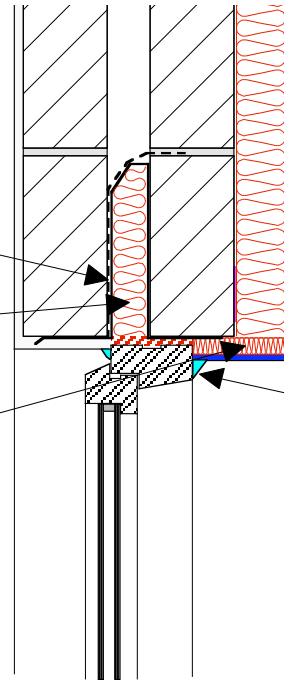
CHECKLIST
(TICK ALL)

Ensure thickness of lintel material is no more than 3 mm

Ensure lintel is fully insulated and does not have a base plate

Install insulation to lintel soffit, with minimum R-value of 0.34 m² K/W

Complying with checklist qualifies builder to claim ψ value in Table 3 of IP 1/06 and Table K1 of DEAP 2006



AIR BARRIER - CONTINUITY

CHECKLIST
(TICK ALL)

Seal all penetrations through air barrier using a flexible sealant

Apply flexible sealant to interface between plasterboard internal finish, and frame members

Complying with checklist will help achieve design air permeability

GENERAL NOTES

OPTION
(TICK ONE)

AIR BARRIER - OPTIONS

Masonry inner leaf, with scratch coat applied to internal face of inner leaf, with insulated dry-lining on dabs or mechanically fixed pre-treated timber battens, or

Insulated dry-lining on dabs or battens, with continuous ribbon of adhesive tape around all openings, along top and bottom of wall, and at internal and external corners, or

Airtightness membrane and tapes

THERMAL PERFORMANCE

CHECKLIST
(TICK ALL)

Install proprietary cavity closer, or block of insulation, with thermal resistance path through closer of 0.45 m² K/W or better (Manufacturers' certified data)

Install insulation to lintel soffit, with minimum R-value of 0.34 m² K/W

Complying with checklist qualifies builder to claim ψ value in Table 3 of IP 1/06 and Table K1 of DEAP 2006

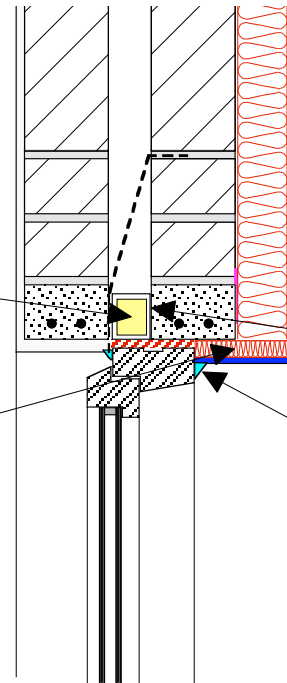
AIR BARRIER - CONTINUITY

CHECKLIST
(TICK ALL)

Seal all penetrations through air barrier using a flexible sealant

If forming air barrier to walls with blockwork inner leaf, or with scratch coat on blockwork, install a flexible sealant between cavity closer and blockwork wall

Apply flexible sealant to interface between plasterboard internal finish, and frame members



Complying with checklist will help achieve design air permeability

GENERAL NOTES

OPTION
(TICK ONE)

AIR BARRIER - OPTIONS

Masonry inner leaf, with scratch coat applied to internal face of inner leaf, with insulated dry-lining on dabs or mechanically fixed pre-treated timber battens, or

Insulated dry-lining on dabs or battens, with continuous ribbon of adhesive tape around all openings, along top and bottom of wall, and at internal and external corners, or

Airtightness membrane and tapes

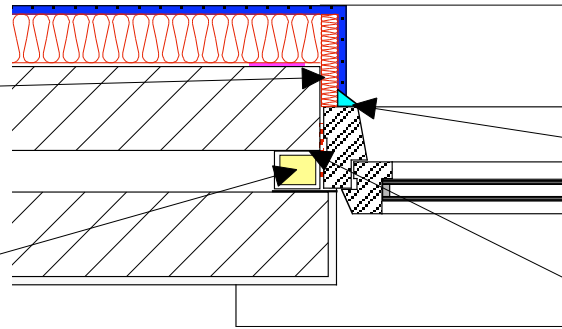
THERMAL PERFORMANCE

CHECKLIST
(TICK ALL)

Install insulation to jamb, with minimum R-value of 0.34 m² K/W

Install proprietary cavity closer with thermal resistance path through closer of 0.45 m² K/W or better (Manufacturers' certified data)

Complying with checklist qualifies builder to claim ψ value in Table 3 of IP 1/06 and Table K1 of DEAP 2006



AIR BARRIER - CONTINUITY

CHECKLIST
(TICK ALL)

Seal all penetrations through air barrier using a flexible sealant

Apply flexible sealant to interface between plasterboard internal finish, and frame members

If forming air barrier to walls with blockwork inner leaf, or with scratch coat on blockwork, install a flexible sealant between cavity closer and blockwork wall

Complying with checklist will help achieve design air permeability

GENERAL NOTES

OPTION
(TICK ONE)

AIR BARRIER - OPTIONS

- Masonry inner leaf, with scratch coat applied to internal face of inner leaf, with insulated dry-lining on dabs or mechanically fixed pre-treated timber battens, or
- Insulated dry-lining on dabs or battens, with continuous ribbon of adhesive tape around all openings, along top and bottom of wall, and at internal and external corners, or
- Airtightness membrane and tapes

THERMAL PERFORMANCE

CHECKLIST (TICK ALL)

Ensure insulated dry-lining tightly abuts underside of windowboard

Install proprietary cavity closer with thermal resistance path through closer of 0.45 m² K/W or better (Manufacturers' certified data)

Complying with checklist qualifies builder to claim ψ value in Table 3 of IP 1/06 and Table K1 of DEAP 2006

AIR BARRIER - CONTINUITY

CHECKLIST (TICK ALL)

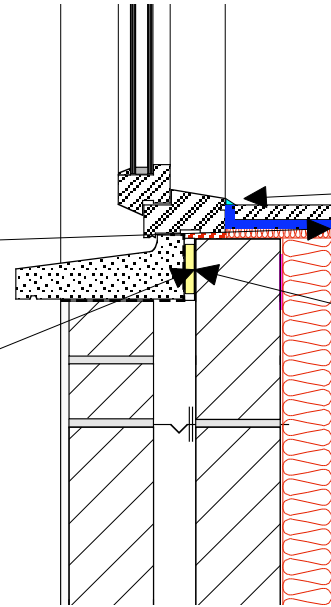
Seal all penetrations through air barrier using a flexible sealant

Apply flexible sealant to interface between plasterboard and windowboard, and between windowboard and frame

If forming air barrier to walls with blockwork inner leaf, or with scratch coat on blockwork, install a flexible sealant between cavity closer and blockwork wall

Ensure air barrier continuity between window, and wall plasterboard

Complying with checklist will help achieve design air permeability



GENERAL NOTES

OPTION (TICK ONE)

AIR BARRIER - OPTIONS

Masonry inner leaf, with scratch coat applied to internal face of inner leaf, with insulated dry-lining on dabs or mechanically fixed pre-treated timber battens, or

Insulated dry-lining on dabs or battens, with continuous ribbon of adhesive tape around all openings, along top and bottom of wall, and at internal and external corners, or

Airtightness membrane and tapes

THERMAL PERFORMANCE

CHECKLIST (TICK ALL)

20 mm insulation having a min. R-value of 0.09 m K/W

Ensure insulated dry-lining tightly abuts underside of windowboard

Complying with checklist qualifies builder to claim ψ value in Table 3 of IP 1/06 and Table K1 of DEAP 2006

AIR BARRIER - CONTINUITY

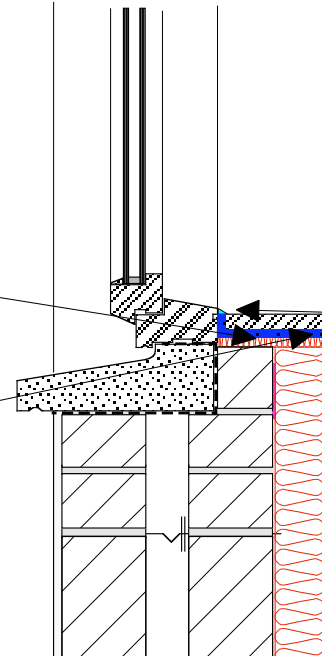
CHECKLIST (TICK ALL)

Seal all penetrations through air barrier using a flexible sealant

Apply flexible sealant to junctions between plaster/plasterboard and sill board, and between sill board and window frame

Ensure air barrier continuity between the window and the wall air barrier line

Complying with checklist will help achieve design air permeability



GENERAL NOTES

Keep cavities clean of mortar snots and other debris during construction

OPTION (TICK ONE)

AIR BARRIER - OPTIONS

Masonry inner leaf, with scratch coat applied to internal face of inner leaf, with insulated dry-lining on dabs or mechanically fixed pre-treated timber battens, or

Insulated dry-lining on dabs or battens, with continuous ribbon of adhesive tape around all openings, along top and bottom of wall, and at internal and external corners, or

Airtightness membrane and tapes